



MEAS HD DO-35 SERIES THERMISTOR 10K BETA ^{25/85} 3450

- High Stability DO-35 Thermistor
- Highly Density (HD) electroceramic thermistor
- Hermetically sealed elements, glass encapsulation
- Axial Leads for PCB mounting
- High temperature devices for applications up to +300°C
- RoHS Compliant
- Copper clad steel (CCS Wire)

Features

- Hermetically sealed glass package
- Proven Stability at elevated temperatures
- High temperature capability to +300°C
- 24 AWG Nickel Plated CCS Wire
- Cost effective for high volume applications
- Temp range (Nickel plated) -40°C to +300 °C
- Temp range (Tinned) -40 °C to +200 °C

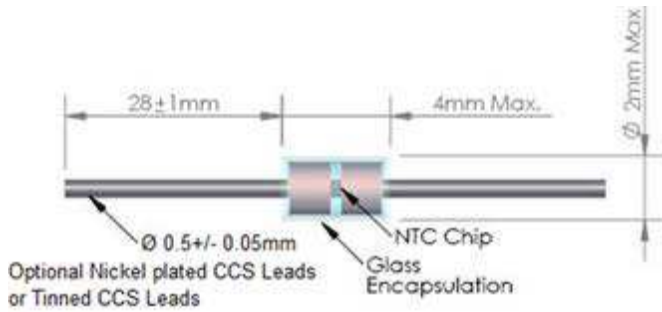
Applications

- HVAC and refrigeration probe assemblies
- High humidity due to glass protection
- Consumer electronics
- PCB temperature sensing
- Air conditioning

TE has recently developed new advanced ceramic processing techniques and proprietary formulations for the manufacture of high-stability electroceramic thermistor materials. These materials are now used in a select range of DO-35 thermistor sensor components. The newly developed high-density thermistor chip is hermetically sealed in a glass (DO-35 diode style) package to provide protection where high humidity is present and long-term performance is required.

MEAS NTC DO-35 THERMISTOR 10K BETA_{25/85} 3450

Dimensions



Electrical Specifications

| PARAMETERS | UNITS | VALUE |
|---|---------|-------------|
| Resistance @ +25°C | Ohms | 10,000 |
| Resistance tolerance @ +25°C | % | ± 1 |
| Beta Value 25/85 | K | 3450 |
| Tolerance on Beta Value 25/85 | % | ± 1 |
| Time response in liquid | Seconds | Approx.2 |
| Dissipation Constant in still air | mW/°C | 1.9 |
| Operating Temperature (Nickel plated CCS Leads) | °C | -40 to +300 |
| Operating Temperature (Tinned CCS Leads) | °C | -40 to +200 |
| Max' Permissible Current (25°C, Still Air) | A max | 0.25mA |
| Max' Power Rating (25°C, Still Air) | P max | 110 mW |

General Test

| TEST ITEM | PERFORMANCE REQUIREMENTS | TEST CONDITION |
|-------------------------------------|--------------------------|---|
| A. Appearance | No Cracking | Visual examination |
| B. Dimension | Dimension tolerances | Caliper, Micrometer |
| C. Resistance (R25) | 10K±1% | At zero power, 25°C |
| D. Beta Value | B25/85=3450K±1% | B = $\frac{\ln R25 - \ln R85}{1/298.15 - 1/358.15}$ |
| | | R25=Resistance at 25.0±0.1°C |
| | | R85=Resistance at 85.0±0.1°C |
| E. Thermal time constant (τ) | Approx.2 sec | Measured in stirred water |
| F. Thermal Dissipation Constant (δ) | Approx.1.9m W/°C | Measured in still air, normal temp |

Reliability

| TEST ITEM | TEST METHODS | CRITERIA |
|---|---|---|
| A. Low temperature storage | After placing a thermistor in -40°C±3°C for 1000 hours, keep it in normal temperature and humidity for one hour. | $\Delta R/R \leq 2\%$ $\Delta B/B \leq 1\%$ |
| B. High temperature storage | Tinned Version: After placing a thermistor in 200°C±3°C for 1000 hours, keep it in normal temperature and humidity for one hour. | $\Delta R/R \leq 2\%$ $\Delta B/B \leq 1\%$ |
| | Nickel Plated Version: After placing a thermistor in 300°C±3°C for 1000 hours, keep it in normal temperature and humidity for one hour. | $\Delta R/R \leq 3\%$ $\Delta B/B \leq 2\%$ |
| C. Thermal cycle test | After 100 cycles test under the conditions as shown below, keep the thermistor in normal temperature and humidity for one hour. | $\Delta R/R \leq 2\%$ $\Delta B/B \leq 1\%$ |
| <p>The diagram illustrates the thermal cycle test waveform. It features three horizontal lines representing temperature levels: 80°C±3°C (in air) at the top, Normal temp (in air) in the middle, and -20°C±3°C (in air) at the bottom. The waveform shows a sequence of temperature steps: a 30-minute dwell at 80°C±3°C, a 15-minute dwell at Normal temp, a 30-minute dwell at -20°C±3°C, and a 15-minute dwell at Normal temp. This sequence is labeled as '1 Cycle'. A second identical sequence is shown, labeled as '2 Cycle'.</p> | | |
| D. Humidity test | After placing a thermistor in 40°C±2°C, 90~95%RH, for 1000 hours, keep it in normal temperature and humidity for one hour. | $\Delta R/R \leq 2\%$ $\Delta B/B \leq 1\%$ |

Resistance vs. Temperature Table

R25=10KΩ±1% B25/85=3450K±1%

| TEMP. (°C) | MINIMUM (KΩ) | NOMINAL (KΩ) | MAXIMUM (KΩ) | ALPHA(%/°C) |
|------------|--------------|--------------|--------------|-------------|
| -40.0 | 194.700 | 204.224 | 214.193 | -5.82 |
| -39.0 | 183.872 | 192.727 | 201.988 | -5.77 |
| -38.0 | 173.724 | 181.959 | 190.565 | -5.73 |
| -37.0 | 164.208 | 171.869 | 179.870 | -5.68 |
| -36.0 | 155.281 | 162.411 | 169.852 | -5.64 |
| -35.0 | 146.902 | 153.540 | 160.461 | -5.60 |
| -34.0 | 139.035 | 145.216 | 151.657 | -5.55 |
| -33.0 | 131.645 | 137.402 | 143.397 | -5.51 |
| -32.0 | 124.698 | 130.063 | 135.644 | -5.47 |
| -31.0 | 118.167 | 123.167 | 128.365 | -5.43 |
| -30.0 | 112.023 | 116.684 | 121.526 | -5.39 |
| -29.0 | 106.242 | 110.587 | 115.100 | -5.35 |
| -28.0 | 100.798 | 104.851 | 109.057 | -5.31 |
| -27.0 | 95.671 | 99.452 | 103.373 | -5.27 |
| -26.0 | 90.839 | 94.368 | 98.024 | -5.23 |
| -25.0 | 86.285 | 89.578 | 92.988 | -5.19 |
| -24.0 | 81.990 | 85.064 | 88.245 | -5.15 |
| -23.0 | 77.937 | 80.808 | 83.776 | -5.12 |
| -22.0 | 74.113 | 76.793 | 79.563 | -5.08 |
| -21.0 | 70.501 | 73.005 | 75.590 | -5.04 |
| -20.0 | 67.090 | 69.429 | 71.843 | -5.01 |
| -19.0 | 63.866 | 66.052 | 68.305 | -4.97 |
| -18.0 | 60.819 | 62.862 | 64.966 | -4.93 |
| -17.0 | 57.937 | 59.846 | 61.812 | -4.90 |
| -16.0 | 55.211 | 56.996 | 58.832 | -4.87 |
| -15.0 | 52.631 | 54.299 | 56.014 | -4.83 |
| -14.0 | 50.189 | 51.748 | 53.351 | -4.80 |
| -13.0 | 47.875 | 49.334 | 50.831 | -4.76 |
| -12.0 | 45.684 | 47.047 | 48.446 | -4.73 |
| -11.0 | 43.607 | 44.882 | 46.189 | -4.70 |
| -10.0 | 41.637 | 42.830 | 44.052 | -4.67 |
| -9.0 | 39.770 | 40.885 | 42.027 | -4.63 |

Resistance vs. Temperature Table

R25=10KΩ±1% B25/85=3450K±1%

| TEMP. (°C) | MINIMUM (KΩ) | NOMINAL (KΩ) | MAXIMUM (KΩ) | ALPHA(%/°C) |
|------------|--------------|--------------|--------------|-------------|
| -8.0 | 37.998 | 39.041 | 40.108 | -4.60 |
| -7.0 | 36.316 | 37.291 | 38.289 | -4.57 |
| -6.0 | 34.719 | 35.632 | 36.564 | -4.54 |
| -5.0 | 33.203 | 34.056 | 34.928 | -4.51 |
| -4.0 | 31.763 | 32.560 | 33.375 | -4.48 |
| -3.0 | 30.394 | 31.140 | 31.901 | -4.45 |
| -2.0 | 29.092 | 29.790 | 30.501 | -4.42 |
| -1.0 | 27.855 | 28.507 | 29.171 | -4.39 |
| 0.0 | 26.677 | 27.287 | 27.908 | -4.35 |
| 1.0 | 25.560 | 26.130 | 26.710 | -4.32 |
| 2.0 | 24.496 | 25.029 | 25.571 | -4.29 |
| 3.0 | 23.483 | 23.981 | 24.487 | -4.26 |
| 4.0 | 22.518 | 22.984 | 23.456 | -4.24 |
| 5.0 | 21.599 | 22.034 | 22.475 | -4.21 |
| 6.0 | 20.723 | 21.129 | 21.541 | -4.18 |
| 7.0 | 19.888 | 20.267 | 20.651 | -4.15 |
| 8.0 | 19.091 | 19.445 | 19.804 | -4.13 |
| 9.0 | 18.332 | 18.662 | 18.996 | -4.10 |
| 10.0 | 17.607 | 17.915 | 18.226 | -4.07 |
| 11.0 | 16.915 | 17.202 | 17.492 | -4.05 |
| 12.0 | 16.254 | 16.522 | 16.792 | -4.02 |
| 13.0 | 15.623 | 15.872 | 16.124 | -4.00 |
| 14.0 | 15.021 | 15.253 | 15.487 | -3.97 |
| 15.0 | 14.445 | 14.661 | 14.878 | -3.95 |
| 16.0 | 13.895 | 14.095 | 14.297 | -3.92 |
| 17.0 | 13.368 | 13.555 | 13.743 | -3.90 |
| 18.0 | 12.865 | 13.038 | 13.213 | -3.87 |
| 19.0 | 12.384 | 12.545 | 12.706 | -3.85 |
| 20.0 | 11.924 | 12.072 | 12.222 | -3.83 |
| 21.0 | 11.483 | 11.621 | 11.759 | -3.80 |
| 22.0 | 11.061 | 11.189 | 11.316 | -3.78 |
| 23.0 | 10.657 | 10.775 | 10.893 | -3.76 |
| 24.0 | 10.271 | 10.379 | 10.488 | -3.73 |
| 25.0 | 9.900 | 10.000 | 10.100 | -3.71 |
| 26.0 | 9.536 | 9.637 | 9.738 | -3.69 |

Resistance vs. Temperature Table

R25=10KΩ±1% B25/85=3450K±1%

| TEMP. (°C) | MINIMUM (KΩ) | NOMINAL (KΩ) | MAXIMUM (KΩ) | ALPHA(%/°C) |
|------------|--------------|--------------|--------------|-------------|
| 27.0 | 9.188 | 9.289 | 9.391 | -3.67 |
| 28.0 | 8.854 | 8.956 | 9.058 | -3.64 |
| 29.0 | 8.534 | 8.636 | 8.739 | -3.62 |
| 30.0 | 8.228 | 8.330 | 8.433 | -3.60 |
| 31.0 | 7.934 | 8.036 | 8.139 | -3.58 |
| 32.0 | 7.653 | 7.755 | 7.857 | -3.56 |
| 33.0 | 7.383 | 7.484 | 7.587 | -3.54 |
| 34.0 | 7.124 | 7.225 | 7.327 | -3.52 |
| 35.0 | 6.875 | 6.976 | 7.078 | -3.50 |
| 36.0 | 6.637 | 6.737 | 6.838 | -3.48 |
| 37.0 | 6.408 | 6.508 | 6.608 | -3.46 |
| 38.0 | 6.188 | 6.287 | 6.387 | -3.44 |
| 39.0 | 5.977 | 6.076 | 6.175 | -3.42 |
| 40.0 | 5.775 | 5.872 | 5.970 | -3.40 |
| 41.0 | 5.580 | 5.677 | 5.774 | -3.38 |
| 42.0 | 5.393 | 5.489 | 5.585 | -3.36 |
| 43.0 | 5.214 | 5.308 | 5.404 | -3.34 |
| 44.0 | 5.041 | 5.134 | 5.229 | -3.32 |
| 45.0 | 4.875 | 4.967 | 5.061 | -3.30 |
| 46.0 | 4.715 | 4.806 | 4.899 | -3.28 |
| 47.0 | 4.561 | 4.652 | 4.743 | -3.26 |
| 48.0 | 4.413 | 4.503 | 4.593 | -3.25 |
| 49.0 | 4.271 | 4.359 | 4.449 | -3.23 |
| 50.0 | 4.134 | 4.221 | 4.310 | -3.28 |
| 51.0 | 3.999 | 4.085 | 4.172 | -3.27 |
| 52.0 | 3.869 | 3.954 | 4.040 | -3.26 |
| 53.0 | 3.744 | 3.828 | 3.913 | -3.25 |
| 54.0 | 3.624 | 3.706 | 3.790 | -3.23 |
| 55.0 | 3.507 | 3.588 | 3.671 | -3.22 |
| 56.0 | 3.395 | 3.475 | 3.556 | -3.21 |
| 57.0 | 3.287 | 3.365 | 3.446 | -3.20 |
| 58.0 | 3.182 | 3.260 | 3.339 | -3.18 |
| 59.0 | 3.082 | 3.158 | 3.236 | -3.17 |
| 60.0 | 2.985 | 3.060 | 3.136 | -3.16 |
| 61.0 | 2.891 | 2.965 | 3.040 | -3.15 |

Resistance vs. Temperature Table

R25=10KΩ±1% B25/85=3450K±1%

| TEMP. (°C) | MINIMUM (KΩ) | NOMINAL (KΩ) | MAXIMUM (KΩ) | ALPHA(%/°C) |
|------------|--------------|--------------|--------------|-------------|
| 62.0 | 2.800 | 2.873 | 2.947 | -3.14 |
| 63.0 | 2.713 | 2.785 | 2.858 | -3.13 |
| 64.0 | 2.629 | 2.699 | 2.771 | -3.11 |
| 65.0 | 2.548 | 2.617 | 2.688 | -3.10 |
| 66.0 | 2.469 | 2.537 | 2.607 | -3.09 |
| 67.0 | 2.393 | 2.460 | 2.529 | -3.08 |
| 68.0 | 2.320 | 2.386 | 2.453 | -3.07 |
| 69.0 | 2.249 | 2.314 | 2.380 | -3.06 |
| 70.0 | 2.181 | 2.244 | 2.310 | -3.05 |
| 71.0 | 2.115 | 2.177 | 2.241 | -3.03 |
| 72.0 | 2.051 | 2.112 | 2.175 | -3.02 |
| 73.0 | 1.989 | 2.050 | 2.111 | -3.01 |
| 74.0 | 1.930 | 1.989 | 2.050 | -3.00 |
| 75.0 | 1.872 | 1.930 | 1.990 | -2.99 |
| 76.0 | 1.816 | 1.874 | 1.932 | -2.98 |
| 77.0 | 1.763 | 1.819 | 1.876 | -2.97 |
| 78.0 | 1.710 | 1.766 | 1.822 | -2.96 |
| 79.0 | 1.660 | 1.714 | 1.770 | -2.95 |
| 80.0 | 1.611 | 1.665 | 1.719 | -2.94 |
| 81.0 | 1.564 | 1.617 | 1.670 | -2.93 |
| 82.0 | 1.519 | 1.570 | 1.623 | -2.92 |
| 83.0 | 1.475 | 1.525 | 1.577 | -2.91 |
| 84.0 | 1.432 | 1.481 | 1.532 | -2.90 |
| 85.0 | 1.391 | 1.439 | 1.489 | -2.89 |
| 86.0 | 1.351 | 1.398 | 1.447 | -2.88 |
| 87.0 | 1.312 | 1.359 | 1.407 | -2.87 |
| 88.0 | 1.275 | 1.320 | 1.368 | -2.86 |
| 89.0 | 1.238 | 1.283 | 1.330 | -2.85 |
| 90.0 | 1.203 | 1.247 | 1.293 | -2.84 |
| 91.0 | 1.169 | 1.213 | 1.257 | -2.83 |
| 92.0 | 1.136 | 1.179 | 1.223 | -2.82 |
| 93.0 | 1.104 | 1.146 | 1.189 | -2.81 |
| 94.0 | 1.073 | 1.114 | 1.157 | -2.80 |
| 95.0 | 1.044 | 1.084 | 1.125 | -2.79 |
| 96.0 | 1.015 | 1.054 | 1.095 | -2.78 |

Resistance vs. Temperature Table

R25=10KΩ±1% B25/85=3450K±1%

| TEMP. (°C) | MINIMUM (KΩ) | NOMINAL (KΩ) | MAXIMUM (KΩ) | ALPHA(%/°C) |
|------------|--------------|--------------|--------------|-------------|
| 97.0 | 0.986 | 1.025 | 1.065 | -2.77 |
| 98.0 | 0.959 | 0.997 | 1.037 | -2.76 |
| 99.0 | 0.933 | 0.970 | 1.009 | -2.75 |
| 100.0 | 0.907 | 0.944 | 0.982 | -2.66 |
| 101.0 | 0.883 | 0.919 | 0.956 | -2.65 |
| 102.0 | 0.860 | 0.895 | 0.932 | -2.64 |
| 103.0 | 0.837 | 0.872 | 0.908 | -2.63 |
| 104.0 | 0.815 | 0.849 | 0.885 | -2.62 |
| 105.0 | 0.794 | 0.827 | 0.862 | -2.61 |
| 106.0 | 0.773 | 0.806 | 0.840 | -2.60 |
| 107.0 | 0.753 | 0.785 | 0.819 | -2.60 |
| 108.0 | 0.734 | 0.765 | 0.798 | -2.59 |
| 109.0 | 0.715 | 0.746 | 0.778 | -2.58 |
| 110.0 | 0.696 | 0.727 | 0.759 | -2.57 |
| 111.0 | 0.679 | 0.708 | 0.740 | -2.56 |
| 112.0 | 0.661 | 0.691 | 0.721 | -2.55 |
| 113.0 | 0.644 | 0.673 | 0.703 | -2.54 |
| 114.0 | 0.628 | 0.656 | 0.686 | -2.53 |
| 115.0 | 0.612 | 0.640 | 0.669 | -2.52 |
| 116.0 | 0.597 | 0.624 | 0.653 | -2.51 |
| 117.0 | 0.582 | 0.609 | 0.637 | -2.50 |
| 118.0 | 0.567 | 0.594 | 0.621 | -2.50 |
| 119.0 | 0.553 | 0.579 | 0.606 | -2.49 |
| 120.0 | 0.540 | 0.565 | 0.591 | -2.48 |
| 121.0 | 0.526 | 0.551 | 0.577 | -2.47 |
| 122.0 | 0.513 | 0.538 | 0.563 | -2.46 |
| 123.0 | 0.501 | 0.525 | 0.550 | -2.45 |
| 124.0 | 0.488 | 0.512 | 0.537 | -2.44 |
| 125.0 | 0.477 | 0.500 | 0.524 | -2.44 |
| 126.0 | 0.465 | 0.488 | 0.512 | -2.43 |
| 127.0 | 0.454 | 0.476 | 0.499 | -2.42 |
| 128.0 | 0.443 | 0.465 | 0.488 | -2.41 |
| 129.0 | 0.432 | 0.454 | 0.476 | -2.40 |
| 130.0 | 0.422 | 0.443 | 0.465 | -2.39 |
| 131.0 | 0.412 | 0.432 | 0.454 | -2.39 |

Resistance vs. Temperature Table

R25=10KΩ±1% B25/85=3450K±1%

| TEMP. (°C) | MINIMUM (KΩ) | NOMINAL (KΩ) | MAXIMUM (KΩ) | ALPHA(%/°C) |
|------------|--------------|--------------|--------------|-------------|
| 132.0 | 0.402 | 0.422 | 0.444 | -2.38 |
| 133.0 | 0.392 | 0.412 | 0.433 | -2.37 |
| 134.0 | 0.383 | 0.403 | 0.423 | -2.36 |
| 135.0 | 0.374 | 0.393 | 0.414 | -2.35 |
| 136.0 | 0.365 | 0.384 | 0.404 | -2.35 |
| 137.0 | 0.357 | 0.375 | 0.395 | -2.34 |
| 138.0 | 0.348 | 0.367 | 0.386 | -2.33 |
| 139.0 | 0.340 | 0.358 | 0.377 | -2.32 |
| 140.0 | 0.332 | 0.350 | 0.369 | -2.31 |
| 141.0 | 0.325 | 0.342 | 0.360 | -2.31 |
| 142.0 | 0.317 | 0.334 | 0.352 | -2.30 |
| 143.0 | 0.310 | 0.327 | 0.344 | -2.29 |
| 144.0 | 0.303 | 0.319 | 0.337 | -2.28 |
| 145.0 | 0.296 | 0.312 | 0.329 | -2.28 |
| 146.0 | 0.289 | 0.305 | 0.322 | -2.27 |
| 147.0 | 0.283 | 0.298 | 0.315 | -2.26 |
| 148.0 | 0.276 | 0.292 | 0.308 | -2.26 |
| 149.0 | 0.270 | 0.285 | 0.301 | -2.25 |
| 150.0 | 0.264 | 0.279 | 0.294 | -2.20 |
| 151.0 | 0.258 | 0.273 | 0.288 | -2.19 |
| 152.0 | 0.252 | 0.267 | 0.282 | -2.18 |
| 153.0 | 0.247 | 0.261 | 0.276 | -2.17 |
| 154.0 | 0.242 | 0.255 | 0.270 | -2.16 |
| 155.0 | 0.236 | 0.250 | 0.264 | -2.15 |
| 156.0 | 0.231 | 0.245 | 0.259 | -2.14 |
| 157.0 | 0.226 | 0.240 | 0.253 | -2.14 |
| 158.0 | 0.222 | 0.234 | 0.248 | -2.13 |
| 159.0 | 0.217 | 0.230 | 0.243 | -2.12 |
| 160.0 | 0.212 | 0.225 | 0.238 | -2.11 |
| 161.0 | 0.208 | 0.220 | 0.233 | -2.10 |
| 162.0 | 0.203 | 0.216 | 0.228 | -2.09 |
| 163.0 | 0.199 | 0.211 | 0.224 | -2.08 |
| 164.0 | 0.195 | 0.207 | 0.219 | -2.07 |
| 165.0 | 0.191 | 0.203 | 0.215 | -2.06 |
| 166.0 | 0.187 | 0.198 | 0.210 | -2.05 |

Resistance vs. Temperature Table

R25=10KΩ±1% B25/85=3450K±1%

| TEMP. (°C) | MINIMUM (KΩ) | NOMINAL (KΩ) | MAXIMUM (KΩ) | ALPHA(%/°C) |
|------------|--------------|--------------|--------------|-------------|
| 167.0 | 0.183 | 0.194 | 0.206 | -2.04 |
| 168.0 | 0.179 | 0.190 | 0.202 | -2.03 |
| 169.0 | 0.176 | 0.187 | 0.198 | -2.03 |
| 170.0 | 0.172 | 0.183 | 0.194 | -2.02 |
| 171.0 | 0.169 | 0.179 | 0.190 | -2.01 |
| 172.0 | 0.165 | 0.176 | 0.187 | -2.00 |
| 173.0 | 0.162 | 0.172 | 0.183 | -1.99 |
| 174.0 | 0.159 | 0.169 | 0.179 | -1.98 |
| 175.0 | 0.156 | 0.166 | 0.176 | -1.97 |
| 176.0 | 0.153 | 0.162 | 0.173 | -1.97 |
| 177.0 | 0.150 | 0.159 | 0.169 | -1.96 |
| 178.0 | 0.147 | 0.156 | 0.166 | -1.95 |
| 179.0 | 0.144 | 0.153 | 0.163 | -1.94 |
| 180.0 | 0.141 | 0.150 | 0.160 | -1.93 |
| 181.0 | 0.138 | 0.147 | 0.157 | -1.92 |
| 182.0 | 0.136 | 0.144 | 0.154 | -1.92 |
| 183.0 | 0.133 | 0.142 | 0.151 | -1.91 |
| 184.0 | 0.131 | 0.139 | 0.148 | -1.90 |
| 185.0 | 0.128 | 0.136 | 0.145 | -1.89 |
| 186.0 | 0.126 | 0.134 | 0.143 | -1.88 |
| 187.0 | 0.123 | 0.131 | 0.140 | -1.88 |
| 188.0 | 0.121 | 0.129 | 0.138 | -1.87 |
| 189.0 | 0.119 | 0.127 | 0.135 | -1.86 |
| 190.0 | 0.116 | 0.124 | 0.133 | -1.85 |
| 191.0 | 0.114 | 0.122 | 0.130 | -1.85 |
| 192.0 | 0.112 | 0.120 | 0.128 | -1.84 |
| 193.0 | 0.110 | 0.118 | 0.126 | -1.83 |
| 194.0 | 0.108 | 0.115 | 0.123 | -1.82 |
| 195.0 | 0.106 | 0.113 | 0.121 | -1.82 |
| 196.0 | 0.104 | 0.111 | 0.119 | -1.81 |
| 197.0 | 0.102 | 0.109 | 0.117 | -1.80 |
| 198.0 | 0.100 | 0.107 | 0.115 | -1.79 |
| 199.0 | 0.099 | 0.105 | 0.113 | -1.79 |
| 200.0 | 0.097 | 0.104 | 0.111 | -1.78 |
| 201.0 | 0.095 | 0.102 | 0.109 | -1.77 |

Resistance vs. Temperature Table

R25=10KΩ±1% B25/85=3450K±1%

| TEMP. (°C) | MINIMUM (KΩ) | NOMINAL (KΩ) | MAXIMUM (KΩ) | ALPHA(%/°C) |
|------------|--------------|--------------|--------------|-------------|
| 202.0 | 0.093 | 0.100 | 0.107 | -1.76 |
| 203.0 | 0.092 | 0.098 | 0.105 | -1.76 |
| 204.0 | 0.090 | 0.097 | 0.103 | -1.75 |
| 205.0 | 0.089 | 0.095 | 0.102 | -1.74 |
| 206.0 | 0.087 | 0.093 | 0.100 | -1.74 |
| 207.0 | 0.086 | 0.092 | 0.098 | -1.73 |
| 208.0 | 0.084 | 0.090 | 0.096 | -1.72 |
| 209.0 | 0.083 | 0.089 | 0.095 | -1.72 |
| 210.0 | 0.081 | 0.087 | 0.093 | -1.71 |
| 211.0 | 0.080 | 0.086 | 0.092 | -1.70 |
| 212.0 | 0.078 | 0.084 | 0.090 | -1.69 |
| 213.0 | 0.077 | 0.083 | 0.089 | -1.69 |
| 214.0 | 0.076 | 0.081 | 0.087 | -1.68 |
| 215.0 | 0.075 | 0.080 | 0.086 | -1.67 |
| 216.0 | 0.073 | 0.079 | 0.084 | -1.67 |
| 217.0 | 0.072 | 0.077 | 0.083 | -1.66 |
| 218.0 | 0.071 | 0.076 | 0.082 | -1.65 |
| 219.0 | 0.070 | 0.075 | 0.080 | -1.65 |
| 220.0 | 0.069 | 0.074 | 0.079 | -1.64 |
| 221.0 | 0.067 | 0.072 | 0.078 | -1.64 |
| 222.0 | 0.066 | 0.071 | 0.077 | -1.63 |
| 223.0 | 0.065 | 0.070 | 0.075 | -1.62 |
| 224.0 | 0.064 | 0.069 | 0.074 | -1.62 |
| 225.0 | 0.063 | 0.068 | 0.073 | -1.61 |
| 226.0 | 0.062 | 0.067 | 0.072 | -1.60 |
| 227.0 | 0.061 | 0.066 | 0.071 | -1.60 |
| 228.0 | 0.060 | 0.065 | 0.070 | -1.59 |
| 229.0 | 0.059 | 0.064 | 0.069 | -1.59 |
| 230.0 | 0.058 | 0.063 | 0.067 | -1.58 |
| 231.0 | 0.057 | 0.062 | 0.066 | -1.57 |
| 232.0 | 0.056 | 0.061 | 0.065 | -1.57 |
| 233.0 | 0.056 | 0.060 | 0.064 | -1.56 |
| 234.0 | 0.055 | 0.059 | 0.063 | -1.56 |
| 235.0 | 0.054 | 0.058 | 0.062 | -1.55 |
| 236.0 | 0.053 | 0.057 | 0.061 | -1.54 |

Resistance vs. Temperature Table

R25=10KΩ±1% B25/85=3450K±1%

| TEMP. (°C) | MINIMUM (KΩ) | NOMINAL (KΩ) | MAXIMUM (KΩ) | ALPHA(%/°C) |
|------------|--------------|--------------|--------------|-------------|
| 237.0 | 0.052 | 0.056 | 0.061 | -1.54 |
| 238.0 | 0.051 | 0.055 | 0.060 | -1.53 |
| 239.0 | 0.051 | 0.054 | 0.059 | -1.53 |
| 240.0 | 0.050 | 0.054 | 0.058 | -1.52 |
| 241.0 | 0.049 | 0.053 | 0.057 | -1.51 |
| 242.0 | 0.048 | 0.052 | 0.056 | -1.51 |
| 243.0 | 0.048 | 0.051 | 0.055 | -1.50 |
| 244.0 | 0.047 | 0.051 | 0.055 | -1.50 |
| 245.0 | 0.046 | 0.050 | 0.054 | -1.49 |
| 246.0 | 0.045 | 0.049 | 0.053 | -1.49 |
| 247.0 | 0.045 | 0.048 | 0.052 | -1.48 |
| 248.0 | 0.044 | 0.048 | 0.051 | -1.48 |
| 249.0 | 0.043 | 0.047 | 0.051 | -1.47 |
| 250.0 | 0.043 | 0.046 | 0.050 | -1.46 |
| 251.0 | 0.042 | 0.046 | 0.049 | -1.46 |
| 252.0 | 0.042 | 0.045 | 0.049 | -1.45 |
| 253.0 | 0.041 | 0.044 | 0.048 | -1.45 |
| 254.0 | 0.040 | 0.044 | 0.047 | -1.44 |
| 255.0 | 0.040 | 0.043 | 0.046 | -1.44 |
| 256.0 | 0.039 | 0.042 | 0.046 | -1.43 |
| 257.0 | 0.039 | 0.042 | 0.045 | -1.43 |
| 258.0 | 0.038 | 0.041 | 0.045 | -1.42 |
| 259.0 | 0.038 | 0.041 | 0.044 | -1.42 |
| 260.0 | 0.037 | 0.040 | 0.043 | -1.41 |
| 261.0 | 0.036 | 0.039 | 0.043 | -1.41 |
| 262.0 | 0.036 | 0.039 | 0.042 | -1.40 |
| 263.0 | 0.035 | 0.038 | 0.042 | -1.40 |
| 264.0 | 0.035 | 0.038 | 0.041 | -1.39 |
| 265.0 | 0.034 | 0.037 | 0.040 | -1.39 |
| 266.0 | 0.034 | 0.037 | 0.040 | -1.38 |
| 267.0 | 0.034 | 0.036 | 0.039 | -1.38 |
| 268.0 | 0.033 | 0.036 | 0.039 | -1.37 |
| 269.0 | 0.033 | 0.035 | 0.038 | -1.37 |
| 270.0 | 0.032 | 0.035 | 0.038 | -1.36 |
| 271.0 | 0.032 | 0.034 | 0.037 | -1.36 |

Resistance vs. Temperature Table

R25=10KΩ±1% B25/85=3450K±1%

| TEMP. (°C) | MINIMUM (KΩ) | NOMINAL (KΩ) | MAXIMUM (KΩ) | ALPHA(%/°C) |
|------------|--------------|--------------|--------------|-------------|
| 272.0 | 0.031 | 0.034 | 0.037 | -1.35 |
| 273.0 | 0.031 | 0.033 | 0.036 | -1.35 |
| 274.0 | 0.030 | 0.033 | 0.036 | -1.34 |
| 275.0 | 0.030 | 0.033 | 0.035 | -1.34 |
| 276.0 | 0.030 | 0.032 | 0.035 | -1.33 |
| 277.0 | 0.029 | 0.032 | 0.034 | -1.33 |
| 278.0 | 0.029 | 0.031 | 0.034 | -1.32 |
| 279.0 | 0.028 | 0.031 | 0.034 | -1.32 |
| 280.0 | 0.028 | 0.030 | 0.033 | -1.31 |
| 281.0 | 0.028 | 0.030 | 0.033 | -1.31 |
| 282.0 | 0.027 | 0.030 | 0.032 | -1.30 |
| 283.0 | 0.027 | 0.029 | 0.032 | -1.30 |
| 284.0 | 0.027 | 0.029 | 0.031 | -1.30 |
| 285.0 | 0.026 | 0.029 | 0.031 | -1.29 |
| 286.0 | 0.026 | 0.028 | 0.031 | -1.29 |
| 287.0 | 0.026 | 0.028 | 0.030 | -1.28 |
| 288.0 | 0.025 | 0.027 | 0.030 | -1.28 |
| 289.0 | 0.025 | 0.027 | 0.030 | -1.27 |
| 290.0 | 0.025 | 0.027 | 0.029 | -1.27 |
| 291.0 | 0.024 | 0.026 | 0.029 | -1.26 |
| 292.0 | 0.024 | 0.026 | 0.028 | -1.26 |
| 293.0 | 0.024 | 0.026 | 0.028 | -1.26 |
| 294.0 | 0.023 | 0.025 | 0.028 | -1.25 |
| 295.0 | 0.023 | 0.025 | 0.027 | -1.25 |
| 296.0 | 0.023 | 0.025 | 0.027 | -1.24 |
| 297.0 | 0.023 | 0.025 | 0.027 | -1.24 |
| 298.0 | 0.022 | 0.024 | 0.026 | -1.23 |
| 299.0 | 0.022 | 0.024 | 0.026 | -1.23 |
| 300.0 | 0.022 | 0.024 | 0.026 | -1.23 |

Resistance vs. Temperature Table

R25=10KΩ±1% B25/85=3450K±1%

